



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

February 18, 2020

U.S. Army Corps of Engineers
151 Patton Avenue, Room 208
Asheville, NC 28801-5006

ATTN: Ms. Lori Beckwith
NCDOT Coordinator

Subject: **Application for Section 404 Nationwide Permit 14, and Section 401 Water Quality Certification** for the Proposed Replacement of Bridge 166 on SR 1745 (Shumate Mountain Road) over West Prong Roaring River in Wilkes County, Division 11, TIP No. BR-0124, Debit \$240 from WBS 48833.1.1.

Dear Madam:

The North Carolina Department of Transportation (NCDOT) proposes to replace bridge number 166 on SR 1745 with a new bridge on the existing alignment. Traffic will be detoured off-site during construction.


As a result of replacing the existing bridge, there will be 114 linear feet of stream bank stabilization under the bridge and along a nearby tributary, and 0.02 acre of temporary stream impacts from floating turbidity curtains needed for removal of the existing bridge.

Please see enclosed copies of the Pre-Construction Notification (PCN), bat memo, Catawba Indian Nation response letter, Stormwater Management Plan, and Permit Drawings. A Categorical Exclusion (CE) was completed in August 2019 and distributed shortly thereafter. Additional copies are available upon request.

This project calls for a letting date of July 21, 2020 and a review date of June 2, 2020.

A copy of this permit application and its distribution list will be posted on the NCDOT Website at: <http://connect.ncdot.gov/resources/Environmental>. If you have any questions or need additional information, please contact Erin Cheely at ekcheely@ncdot.gov or (919) 707-6108.

Sincerely,


for Philip S. Harris III, P.E., C.P.M.
Environmental Analysis Unit Head

cc: NCDOT Permit Application Standard Distribution List



Pre-Construction Notification (PCN) Form

For Nationwide Permits and Regional General Permits
(along with corresponding Water Quality Certifications)

September 29, 2018 Ver 3

Please note: fields marked with a red asterisk * below are required. You will not be able to submit the form until all mandatory questions are answered.

Also, if at any point you wish to print a copy of the E-PCN, all you need to do is right-click on the document and you can print a copy of the form.

Below is a link to the online help file.

<https://edocs.deq.nc.gov/WaterResources/0/edoc/624704/PCN%20Help%20File%202018-1-30.pdf>

A. Processing Information

County (or Counties) where the project is located:*

Wilkes

Is this project a public transportation project?*

Yes No

This is any publicly funded by municipal, state or federal funds road, rail, airport transportation project.

Is this a NCDOT Project?*

Yes No

(NCDOT only) T.I.P. or state project number:

BR-0124

WBS #*

48833.1.1

(for NCDOT use only)

1a. Type(s) of approval sought from the Corps:*

- Section 404 Permit (wetlands, streams and waters, Clean Water Act)
 Section 10 Permit (navigable waters, tidal waters, Rivers and Harbors Act)

1b. What type(s) of permit(s) do you wish to seek authorization?*

- Nationwide Permit (NWP)
 Regional General Permit (RGP)
 Standard (IP)

This form may be used to initiate the standard/individual permit process with the Corps. Please contact your Corps representative concerning submittals for standard permits. All required items that are not provided in the E-PCN can be added to the miscellaneous upload area located at the bottom of this form.

1c. Has the NWP or GP number been verified by the Corps?*

Yes No

Nationwide Permit (NWP) Number:

14 - Linear transportation

NWP Numbers (for multiple NWPS):

List all NW numbers you are applying for not on the drop down list.

1d. Type(s) of approval sought from the DWR:*

check all that apply

- 401 Water Quality Certification - Regular
 Non-404 Jurisdictional General Permit
 Individual Permit
 401 Water Quality Certification - Express
 Riparian Buffer Authorization

1e. Is this notification solely for the record because written approval is not required?

*

For the record only for DWR 401 Certification:

Yes No

For the record only for Corps Permit:

Yes No

1f. Is this an after-the-fact permit application?*

Yes No

1g. Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts?

If so, attach the acceptance letter from mitigation bank or in-lieu fee program

Yes No

Acceptance Letter Attachment

Click the upload button or drag and drop files here to attach document

FILETYPE MUST BE PDF

1h. Is the project located in any of NC's twenty coastal counties? *

Yes No

1j. Is the project located in a designated trout watershed? *

Yes No

You must submit a copy of the appropriate Wildlife Resource Commission Office.

Link to trout information: <http://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/Trout.aspx>

B. Applicant Information

1a. Who is the Primary Contact? *

NCDOT

1b. Primary Contact Email: *

ekcheely@ncdot.gov

1c. Primary Contact Phone: *

(xxx)xxx-xxxx
(919)707-6108

1d. Who is applying for the permit? *

Owner Applicant (other than owner)
(Check all that apply)

1e. Is there an Agent/Consultant for this project? *

Yes No

2. Owner Information

2a. Name(s) on recorded deed: *

NC Department of Transportation

2b. Deed book and page no.:

2c. Responsible party:

(for Corporations)

2d. Address *

Street Address

1598 Mail Service Center

Address Line 2

City

Raleigh

Postal / Zip Code

27699

State / Province / Region

NC

Country

USA

2e. Telephone Number: *

(xxx)xxx-xxxx

(919)707-6108

2f. Fax Number:

(xxx)xxx-xxxx

2g. Email Address: *

pharris@ncdot.gov

C. Project Information and Prior Project History

1. Project Information

1a. Name of project: *

BR-0124: Replace Bridge 166 over West Prong Roaring River on SR 1745 (Shumate Mountain Road)

1b. Subdivision name:

(if appropriate)

1c. Nearest municipality / town: *

Traphill

2. Project Identification



2a. Property Identification Number:

(tax PIN or parcel ID)

2b. Property size:

(in acres)

2c. Project Address

Street Address

Address Line 2

City

Postal / Zip Code

State / Province / Region

Country

2d. Site coordinates in decimal degrees

Please collect site coordinates in decimal degrees. Use between 4-6 digits (unless you are using a survey-grade GPS device) after the decimal place as appropriate, based on how the location was determined. (For example, most mobile phones with GPS provide locational precision in decimal degrees to map coordinates to 5 or 6 digits after the decimal place.)

Latitude: *

36.294244
ex: 34.208504

Longitude: *

-81.096802
-77.796371

3. Surface Waters

3a. Name of the nearest body of water to proposed project: *

West Prong Roaring River

3b. Water Resources Classification of nearest receiving water: *

C

[Surface Water Lookup](#)

3c. What river basin(s) is your project located in? *

Yadkin-PeeDee

3d. Please provide the 12-digit HUC in which the project is located. *

030401010403

[River Basin Lookup](#)

4. Project Description and History

4a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: *

Surrounding land use is agricultural and residential interspersed with small to large patches of forested areas.

4b. Have Corps permits or DWR certifications been obtained for this project (including all prior phases) in the past? *

Yes No Unknown

4d. Attach an 8 1/2 X 11 excerpt from the most recent version of the USGS topographic map indicating the location of the project site. (for DWR)

[Click the upload button or drag and drop files here to attach document](#)

File type must be pdf

4e. Attach an 8 1/2 X 11 excerpt from the most recent version of the published County NRCS Soil Survey map depicting the project site. (for DWR)

[Click the upload button or drag and drop files here to attach document](#)

File type must be pdf

4f. List the total estimated acreage of all existing wetlands on the property:

0.02

4g. List the total estimated linear feet of all existing streams on the property:

(intermittent and perennial)

2,383

4h. Explain the purpose of the proposed project: *

The replacement of bridge 166 is part of the Growing Rural Economy and Agriculture through Transportation and Technology Enhancement or Replacement in North Carolina (GREATTER-NC) Project under the United States Department of Transportation's 2018 Better Utilizing Investments to Leverage Development (BUILD) Grant Program. The purpose of the grant and this bridge replacement is to provide transportation infrastructure to support economic development and improve physical and digital connectivity in rural communities in North Carolina. The posted weight restriction on Bridge 166 prohibits large or heavy vehicles, typically used in transporting agricultural and manufactured products, from using the bridge. Vehicles above the posted limit must detour 3.9 miles to avoid the bridge. Replacing this bridge will eliminate posted weight limits by providing a safe crossing for all legal loads and will make accommodations for broadband installation in order to support economic competitiveness.

4i. Describe the overall project in detail, including indirect impacts and the type of equipment to be used: *

The proposed project will replace the existing 136 foot-long, two-lane bridge with a new 143 foot-long, two-lane bridge on the same alignment. Traffic will be detoured offsite during construction. Standard road building equipment such as trucks, dozers, and cranes will be used.

4j. Please upload project drawings for the proposed project.

[Click the upload button or drag and drop files here to attach document](#)

BR-0124 Permit Drawings.pdf

3.64MB

File type must be pdf

5. Jurisdictional Determinations

5a. Have the wetlands or streams been delineated on the property or proposed impact areas? *

Yes No Unknown

Comments:

Of the delineated areas, only two perennial streams (West Prong Roaring River and a UT, Stream SC) are impacted by this project.

5b. If the Corps made a jurisdictional determination, what type of determination was made? *

Preliminary Approved Not Verified Unknown N/A

Corps AID Number:

Example: SAW-2017-99999

5c. If 5a is yes, who delineated the jurisdictional areas?

Name (if known): Nathan Howell, Mary Frazer

Agency/Consultant Company: Three Oaks Engineering

Other:

5d1. Jurisdictional determination upload

Click the upload button or drag and drop files here to attach document

File type must be PDF

6. Future Project Plans

6a. Is this a phased project? *

Yes No

Are any other NWP(s), regional general permit(s), or individual permits(s) used, or intended to be used, to authorize any part of the proposed project or related activity? This includes other separate and distant crossing for linear projects that require Department of the Army authorization but don't require pre-construction notification.

No.

D. Proposed Impacts Inventory

1. Impacts Summary

1a. Where are the impacts associated with your project? (check all that apply):

Wetlands Streams-tributaries Buffers
 Open Waters Pond Construction

3. Stream Impacts

If there are perennial or intermittent stream impacts (including temporary impacts) proposed on the site, then complete this question for all stream sites impacted.

"S." will be used in the table below to represent the word "stream".

	3a. Reason for impact* (?)	3b. Impact type *	3c. Type of impact *	3d. S. name *	3e. Stream Type* (?)	3f. Type of Jurisdiction *	3g. S. width* <i>Average (feet)</i>	3h. Impact length* <i>(linear feet)</i>
S1	Site 1 - Temporary turbidity curtains for bridge replacement	Temporary	Other	West Prong Roaring River	Perennial	Both	50 <i>Average (feet)</i>	5 <i>(linear feet)</i>
S2	Site 1 - Bank stabilization under bridge	Permanent	Bank Stabilization	West Prong Roaring River	Perennial	Both	50 <i>Average (feet)</i>	51 <i>(linear feet)</i>
S3	Site 2 - Bank stabilization along pipe outfall	Permanent	Bank Stabilization	SC	Perennial	Both	5 <i>Average (feet)</i>	63 <i>(linear feet)</i>

** All Perennial or Intermittent streams must be verified by DWR or delegated local government.

3i. Total jurisdictional ditch impact in square feet:

0

3i. Total permanent stream impacts:

114

3i. Total temporary stream impacts:

5

3i. Total stream and ditch impacts:

119

3j. Comments:

Temporary impacts total 0.02 acre (which includes an additional 51' of temporary impacts, but these overlap with bank stabilization impacts).

E. Impact Justification and Mitigation



1. Avoidance and Minimization

1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing the project:*

The proposed replacement bridge will be on the same alignment as the existing bridge, will be slightly longer, and will span the stream. Overall drainage patterns will be maintained. On the end side of the bridge, a traffic bearing grated drop inlet with double frame and grates (2GI) will be placed on both sides of the roadway in the shoulder berm gutter to pick up runoff from the bridge. Deck drains will not discharge directly above water. Class II rip rap abutment protection on both banks of the stream will also be used to prevent future erosion and stream migration.

1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques:*

NCDOT will adhere to Best Management Practices for Construction and Maintenance Activities.

2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State

2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?

Yes No

2b. If this project DOES NOT require Compensatory Mitigation, explain why:

The NCDOT does not propose mitigation for the temporary and bank stabilization impacts related to this project. These impacts do not require permanent fill in the stream bed, therefore, under Section 404 of the Clean Water Act, do not constitute Loss of Waters of the U.S., and are not subject to compensatory mitigation.

NC Stream Temperature Classification Maps can be found under the Mitigation Concepts tab on the Wilmington District's RIBITS website.

F. Stormwater Management and Diffuse Flow Plan (required by DWR)



*** Recent changes to the stormwater rules have required updates to this section .***

1. Diffuse Flow Plan

1a. Does the project include or is it adjacent to protected riparian buffers identified within one of the NC Riparian Buffer Protection Rules?

Yes No

For a list of options to meet the diffuse flow requirements, click [here](#).

If no, explain why:

No buffered resources within project area.

2. Stormwater Management Plan

2a. Is this a NCDOT project subject to compliance with NCDOT's Individual NPDES permit NCS000250?*

Yes No

Comments:

G. Supplementary Information



1. Environmental Documentation

1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land?*

Yes No

1b. If you answered "yes" to the above, does the project require preparation of an environmental document pursuant to the requirements of the National or State (North Carolina) Environmental Policy Act (NEPA/SEPA)?*

Yes No

1c. If you answered "yes" to the above, has the document review been finalized by the State Clearing House? (If so, attach a copy of the NEPA or SEPA final approval letter.)*

Yes No

NEPA or SEPA Final Approval Letter

Click the upload button or drag and drop files here to attach document

BR-0124 CE.pdf

17.72MB

FILE TYPE MUST BE PDF

2. Violations (DWR Requirement)

2a. Is the site in violation of DWR Water Quality Certification Rules (15A NCAC 2H .0500), Isolated Wetland Rules (15A NCAC 2H .1300), or DWR Surface Water or Wetland Standards or Riparian Buffer Rules (15A NCAC 2B .0200)?*

Yes No

3. Cumulative Impacts (DWR Requirement)

3a. Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality? *

Yes No

3b. If you answered "no," provide a short narrative description.

Due to the minimal transportation impact resulting from this bridge replacement, this project will neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect or cumulative effects study will not be necessary.

4. Sewage Disposal (DWR Requirement)

4a. Is sewage disposal required by DWR for this project? *

Yes No N/A

5. Endangered Species and Designated Critical Habitat (Corps Requirement)

5a. Will this project occur in or near an area with federally protected species or habitat? *

Yes No

5b. Have you checked with the USFWS concerning Endangered Species Act impacts? *

Yes No

5c. If yes, indicate the USFWS Field Office you have contacted.

Asheville

5d. Is another Federal agency involved? *

Yes No Unknown

5e. Is this a DOT project located within Division's 1-8? *

Yes No

5f. Will you cut any trees in order to conduct the work in waters of the U.S.? *

Yes No

5g. Does this project involve bridge maintenance or removal? *

Yes No

5g(1). If yes, have you inspected the bridge for signs of bat use such as staining, guano, bats, etc.? Representative photos of signs of bat use can be found in the NLEB SLOPES, Appendix F, pages 3-7.

Yes No

Link to the NLEB SLOPES document: http://saw-reg.usace.army.mil/NLEB/1-30-17-signed_NLEB-SLOPES&apps.pdf

If you answered "Yes" to 5g(1), did you discover any signs of bat use? *

Yes No Unknown

*** If yes, please show the location of the bridge on the permit drawings/project plans.

5h. Does this project involve the construction/installation of a wind turbine(s)? *

Yes No

5i. Does this project involve (1) blasting, and/or (2) other percussive activities that will be conducted by machines, such as jackhammers, mechanized pile drivers, etc.? *

Yes No

If yes, please provide details to include type of percussive activity, purpose, duration, and specific location of this activity on the property.

[Click the upload button or drag and drop files here to attach document](#)

File must be PDF

5j. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? *

As of November 13, 2019, the USFWS lists four protected species for Wilkes County. A biological conclusion for bog turtle is not required, though no suitable habitat is present within the project footprint. USFWS assumes the state is unoccupied by the rusty-patched bumblebee. A memo stating that NCDOT is in compliance with 4(d) with regard to northern long-eared bat was sent to USFWS (Claire Ellwanger) on 1/6/2020. The bridge was assessed for gray bat habitat on 1/9/2020, and there was no evidence of bats (see attached NLEB/MYGR memo).

Consultation Documentation Upload

[Click the upload button or drag and drop files here to attach document](#)

BR-0124 NLEB 4(d) MYGR Wilkes.pdf

240.21KB

File type must be PDF

6. Essential Fish Habitat (Corps Requirement)

6a. Will this project occur in or near an area designated as an Essential Fish Habitat? *

Yes No

6b. What data sources did you use to determine whether your site would impact an Essential Fish Habitat? *

NMFS County Index

7. Historic or Prehistoric Cultural Resources (Corps Requirement)

Link to the State Historic Preservation Office Historic Properties Map (does not include archaeological data: <http://gis.ncdcr.gov/hpoweb/>)

7a. Will this project occur in or near an area that the state, federal or tribal governments have designated as having historic or cultural preservation status (e.g., National Historic Trust designation or properties significant in North Carolina history and archaeology)? *

Yes No

7b. What data sources did you use to determine whether your site would impact historic or archeological resources? *

NEPA documentation

7c. Historic or Prehistoric Information Upload

[Click the upload button or drag and drop files here to attach document](#)

BR-0124 Catawba Indian Nation Response.pdf

459.85KB

[File must be PDF](#)

8. Flood Zone Designation (Corps Requirement)

Link to the FEMA Floodplain Maps: <https://msc.fema.gov/portal/search>

8a. Will this project occur in a FEMA-designated 100-year floodplain? *

Yes No

8c. What source(s) did you use to make the floodplain determination? *

FEMA Maps

Miscellaneous

Comments

Miscellaneous attachments not previously requested.

[Click the upload button or drag and drop files here to attach document](#)

BR-0124 Cover Letter.pdf

340.16KB

[File must be PDF or KMZ](#)

Signature

*

By checking the box and signing below, I certify that:

- I have given true, accurate, and complete information on this form;
- I agree that submission of this PCN form is a "transaction" subject to Chapter 66, Article 40 of the NC General Statutes (the "Uniform Electronic Transactions Act");
- I agree to conduct this transaction by electronic means pursuant to Chapter 66, Article 40 of the NC General Statutes (the "Uniform Electronic Transactions Act");
- I understand that an electronic signature has the same legal effect and can be enforced in the same way as a written signature; AND
- I intend to electronically sign and submit the PCN form.

Full Name: *

Michael Anthony Turchy

Signature

Michael Turchy

Date

2/18/2020



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

January 14, 2020

TO: Erin Cheely, Environmental Program Consultant
Environmental Coordination & Permitting Group, EAU

FROM: Melissa Miller, Environmental Program Consultant
Biological Surveys Group, EAU

SUBJECT: Section 7 survey results for the northern long-eared bat (*Myotis septentrionalis*) and gray bat (*Myotis grisescens*) associated with the replacement of Bridge No. 166 over West Prong Roaring River on SR 1745 in Wilkes County, **TIP No. BR-0124**.

The North Carolina Department of Transportation (NCDOT, Division 11) proposes to replace Bridge No. 166 over West Prong Roaring River on SR 1745 in Wilkes County, TIP No. BR-0124. The existing bridge is a three span structure with steel plank deck, steel I-beams, timber end walls and metal guard rails. The overall length of the structure is 136 feet.

Northern long-eared bat

The project to replace Bridge No. 166 has been reviewed for effects on the northern long-eared bat (NLEB). As of May 4, 2015, NLEB is listed by the U.S. Fish and Wildlife Service (USFWS) as "Threatened" under the Endangered Species Act of 1973. As of January 14, 2020, NLEB is listed by USFWS (http://www.fws.gov/raleigh/species/cntylist/nc_counties.html) as "current" in Wilkes County. USFWS also established a final rule under the authority of section 4(d) of the Endangered Species Act that provides measures for the conservation of NLEB. The USFWS has tailored the final 4(d) rule to prohibit the take of NLEB from certain activities within areas where they are in decline. This incidental take protection applies only to known NLEB occupied maternity roost trees and known NLEB hibernacula. Effective February 16, 2016, incidental take resulting from tree removal is prohibited if it 1) occurs within a ¼ mile radius of known NLEB hibernacula; or 2) cuts or destroys known occupied maternity roost trees or any other trees within a 150-foot radius from the known maternity tree during the pup season (June 1-July 31).

According to the North Carolina Natural Heritage Program (NHP) Biotics Database, most recently updated October 2019, **the nearest NLEB hibernacula record is 42 miles west of the project and no known NLEB roost trees occur within 150 feet of the project area.**

NCDOT has also reviewed the USFWS Asheville Field office website (http://www.fws.gov/asheville/htmls/project_review/NLEB_in_WNC.html) for consistency with NHP records. This project is located entirely outside of the red highlighted areas (12-digit HUC) that the USFWS Asheville Field Office has determined to be representative of an area that may require consultation.

For the proposed action, NCDOT has committed to the conservation measures listed below:

- 1) No alterations of a known hibernacula entrance or interior environment if it impairs an essential behavioral pattern, including sheltering northern long-eared bats (January 1 through December 31);
- 2) No tree removal within a 0.25-mile radius of a known hibernacula (January 1 through December 31); and
- 3) No cutting or destroying a known, occupied maternity roost tree, or any other trees within a 150-foot radius from the known, occupied maternity tree during the period from June 1 through and including July 31.

NCDOT has determined that the proposed action does not require separate consultation on the grounds that the proposed action is consistent with the final Section 4(d) rule, codified at 50 C.F.R. § 17.40(o) and effective February 16, 2016. NCDOT may presume its determination is informed by best available information and consider Section 7 responsibilities fulfilled for NLEB.

*This project was originally state funded and was therefore evaluated on August 13, 2019. NCDOT biologists assessed Bridge No. 166 for potential northern long-eared bat habitat. No shallow vertical top sealed crevices or deep vertical unsealed crevices suitable for roosting were present on the structure. No evidence (bats, staining, and guano) of bats was observed. Based on the type of bridge (metal and steel) and lack of evidence of bats on the bridge, NCDOT recommends a biological conclusion of **No Effect** for the northern long-eared bat.*

Gray Bat

The project to replace Bridge No. 166 has also been reviewed for effects on the gray bat (MYGR). As of April 28, 1976, the gray bat was listed by the U.S. Fish and Wildlife Service (USFWS) as “Endangered” under the Endangered Species Act of 1973. According to the USFWS Wilkes County webpage (accessed January 14, 2020), (http://www.fws.gov/raleigh/species/cntylist/nc_counties.html), the gray bat is listed by USFWS as “probable/potential” in Wilkes County.

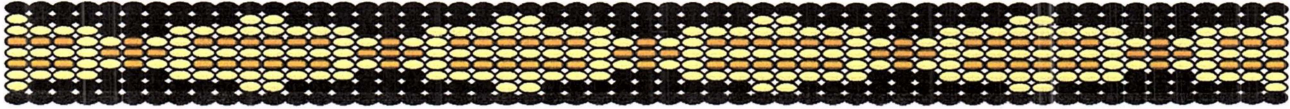
According to the North Carolina Natural Heritage Program (NHP) Biotics Database, most recently updated in October 2019, MYGR have not been documented in Wilkes County. NHP data indicate that **the closest known occurrence of MYGR is approximately 74 miles west of the project site.** In September 2019, a gray bat was found roosting in a bridge in Surry County 24 miles east of the project (*personal correspondence*). As of this writing, the Surry County occurrence is not yet reflected in the NHP Biotics Database.

On November 13, 2019 the gray bat was added as a listed species potentially occurring in Wilkes County. This listing occurred after the survey window for bats (May 15-August 15) had closed. On January 9, 2020, NCDOT biologists assessed the bridge project footprint for potential MYGR habitat. No evidence of bats (bats, staining or guano) was observed on this metal deck and steel beam bridge. No shallow vertical top sealed crevices or deep vertical unsealed crevices suitable for roosting were present on the structure. No caves or mines are located within the project footprint or within line of sight of the bridge. Therefore, no suitable roosting habitat for MYGR is present. Based on the lack of evidence of bats during the recent bridge inspection and the prior August 13 field visit, the type of bridge (metal and steel) and lack of caves or mines in the project vicinity, the proposed project will have a biological conclusion of ***No Effect*** for gray bats.

If you need any additional information, please contact Melissa Miller at 919-707-6127.

Catawba Indian Nation
Tribal Historic Preservation Office
1536 Tom Steven Road
Rock Hill, South Carolina 29730

Office 803-328-2427
Fax 803-328-5791



January 16, 2020

Attention: David Stutts
NC Department of Transportation
1581 Mail Service Center
Raleigh, NC 27699

Re. THPO #	Project #	Project Description
2020-193-83	BR-0124	Replacement of Bridge No. 166 on SR 1745 over West Prong Roaring River in Wilkes Co.

Dear Mr. Stutts,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. **However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project.**

If you have questions please contact Caitlin Rogers at 803-328-2427 ext. 226, or e-mail caitlinh@ccppcrafts.com.

Sincerely,

A handwritten signature in cursive script that reads "Caitlin Rogers for".

Wenonah G. Haire
Tribal Historic Preservation Officer



North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS



(Version 2.08; Released April 2018)

WBS Element: 48833.1.1 TIP No.: BR-0124 County(ies): Wilkes Page 1 of 1

General Project Information

WBS Element:	48833.1.1	TIP Number:	BR-0124	Project Type:	Bridge Replacement	Date:	12/27/2019
NCDOT Contact:	David Stutts		Contractor / Designer:	STV Engineers, Inc. / Shirshant Sharma			
Address:	1020 Birch Ridge Drive Raleigh, NC 27610		Address:	900 West Trade Street, Ste. 715 Charlotte, NC 28202			
	Phone: (919) 707-6442			Phone: (704) 816-2556			
	Email: dstutts@ncdot.gov			Email: Shirshant.Sharma@stvinc.com			
City/Town:	Traphill, NC		County(ies):	Wilkes			
River Basin(s):	Yadkin-Pee Dee		CAMA County?	No			
Wetlands within Project Limits?	No						

Project Description

Project Length (lin. miles or feet):	0.12	Surrounding Land Use:	Agricultural, Rural, Residential, Wooded					
	Proposed Project		Existing Site					
Project Built-Up Area (ac.):	0.5	ac.	0.4		ac.			
Typical Cross Section Description:	Bridge : Two 10' lanes, 5' to the left and right paved shoulders. Shumate Mountain Road Approach: Two 10' lanes, variable paved shoulders. Middle Fork Road Approach: Two 10' lanes, variable paved shoulders.			Bridge: Two 12' lanes, 2' to the left and right shoulders. Shumate Mountain Road Approach: Two 10' lanes, variable shoulders. Middle Fork Road Approach: Two 10' lanes, variable paved shoulders.				
Annual Avg Daily Traffic (veh/hr/day):	Design/Future:	N/A	Year:	2040	Existing:	470	Year:	2016
General Project Narrative: (Description of Minimization of Water Quality Impacts)	<p>The existing 136', 3 span bridge over West Prong Roaring River on SR 1745 (Shumate Mountain Rd) is being replaced with a 3 span bridge with a span arrangement of 1@40' (21" cored slab), 1@60' (24" cored slab), and 1@40' (21" cored slab). The bridge will have 1.5:1 sloping abutments. The bridge will have a normal crown slope at 2% with 10' travel lanes with 5' to the right and 5' to the left shoulders, 27' clear width and 30' OTO width. The existing bridge structure will be removed. Overall drainage patterns will be maintained. There are roadside ditches that flow towards the begin end of the bridge on both sides of the roadway which will be maintained in the proposed condition. There is a proposed ditch reconstruction on the right side of Middle Fork Road. On the end side of the bridge, a traffic bearing grated drop inlet with double frame and grates (2GI) is placed on both sides of the roadway in the shoulder berm gutter to pick up runoff from the bridge. Class-II riprap abutment protection on both banks of the stream is also proposed to prevent future erosion and stream migration. Deck drains will be required to meet spread criteria but the drains will not discharge directly above water.</p>							

Waterbody Information

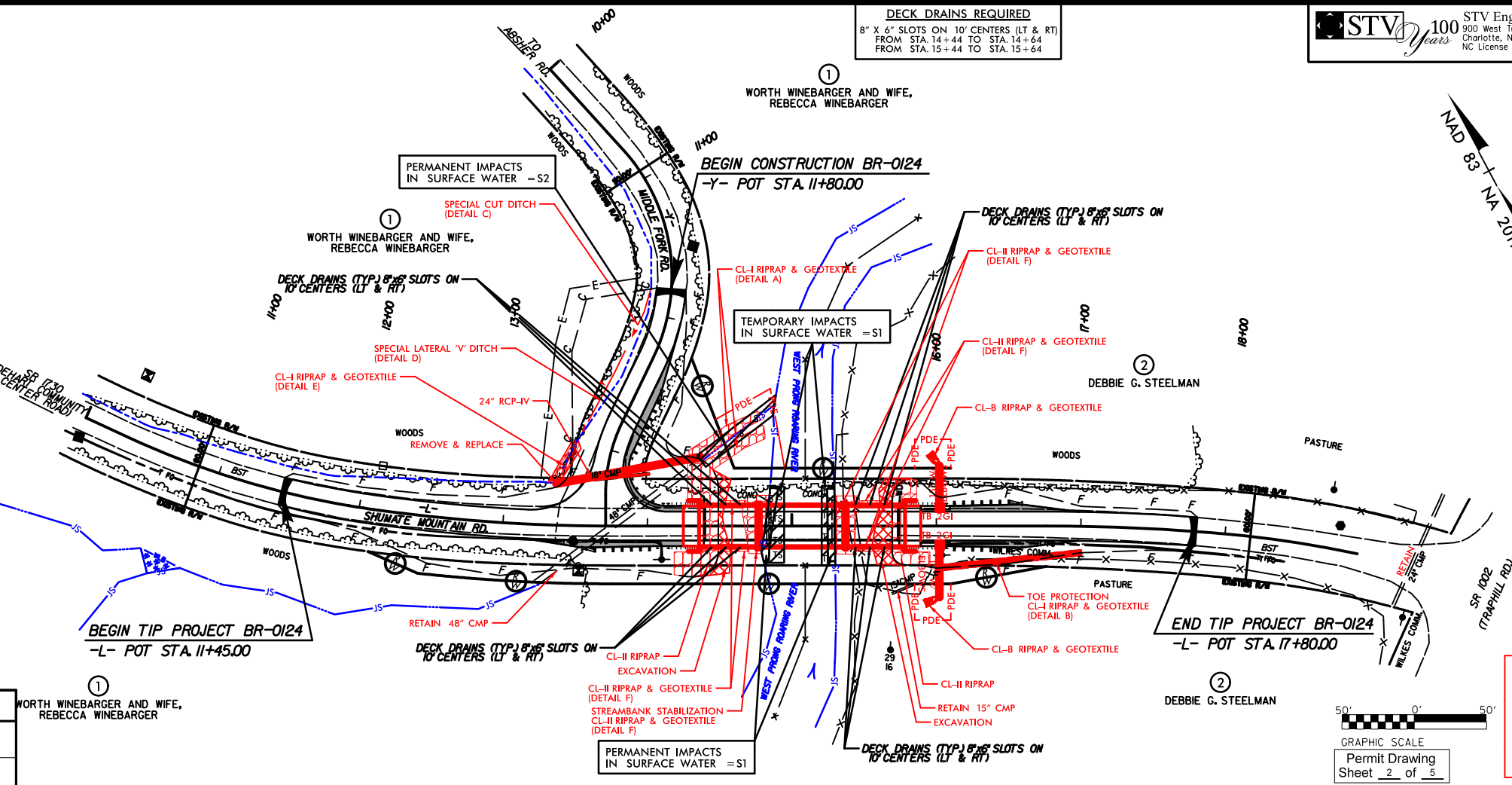
Surface Water Body (1):	West Prong Roaring River		NCDWR Stream Index No.:	12-46-1-(5)			
NCDWR Surface Water Classification for Water Body	Primary Classification:		Class C				
	Supplemental Classification:		None				
Other Stream Classification:	None						
Impairments:	None						
Aquatic T&E Species?	No	Comments:					
NRTR Stream ID:						Buffer Rules in Effect:	N/A
Project Includes Bridge Spanning Water Body?	Yes	Deck Drains Discharge Over Buffer?	N/A	Dissipater Pads Provided in Buffer?		No	
Deck Drains Discharge Over Water Body?	No	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)			
(If yes, provide justification in the General Project Narrative)							

8/17/19

-L-	
PI Sta 11+22.13 Δ = 16° 55' 44.2" (LT) D = 9° 32' 57.5" L = 177.25' T = 83.28' R = 600.00'	PI Sta 12+193.00 Δ = 7° 54' 08.2" (LT) D = 4° 46' 28.7" L = 165.50' T = 82.38' R = 1200.00'
PI Sta 17+40.98 Δ = 5° 18' 23.2" (RT) D = 4° 05' 33.2" L = 128.68' T = 64.88' R = 1400.00'	PI Sta 18+43.07 Δ = 6° 06' 02.7" (RT) D = 9° 11' 06.4" L = 74.53' T = 37.30' R = 700.00'

-Y-	
PI Sta 11+62.98 Δ = 6° 56' 21.7" (RT) D = 44° 04' 25.2" L = 154.15' T = 87.59' R = 130.00'	PI Sta 13+05.49 Δ = 25° 49' 17.2" (LT) D = 49° 49' 20.7" L = 58.31' T = 26.36' R = 115.00'

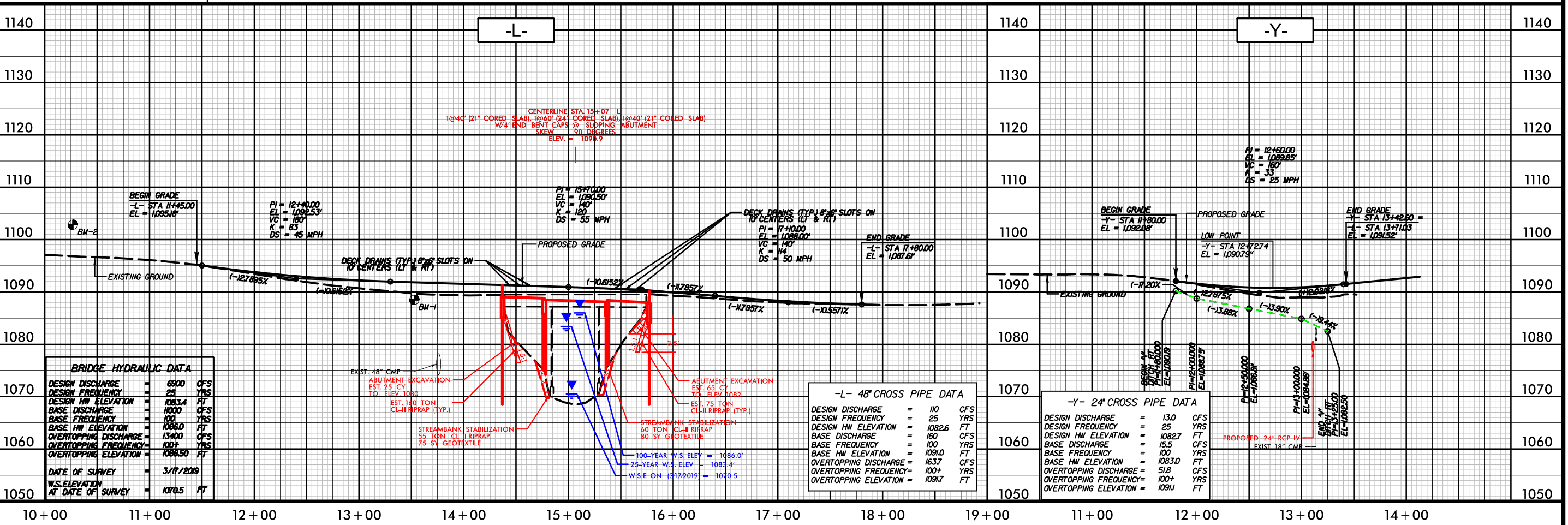
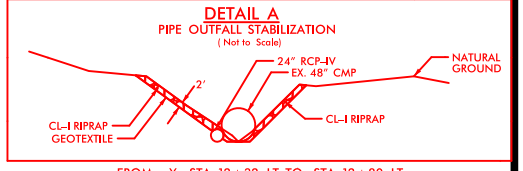
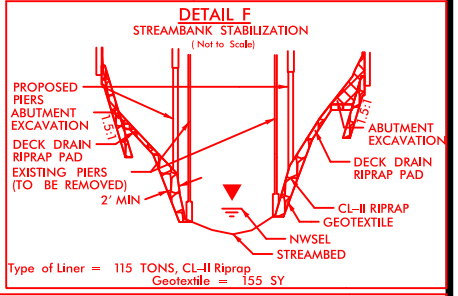
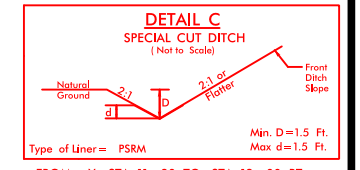
LEGEND	
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES IMPACTS IN SURFACE WATER



DECK DRAINS REQUIRED
8" X 4" SLOTS ON 10' CENTERS (LT & RT)
FROM STA. 14+44 TO STA. 14+64
FROM STA. 15+44 TO STA. 15+64

STV 100 Years
STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

PROJECT REFERENCE NO. BR-0124	SHEET NO. 2
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



2/18/2020 R:\Hydro\Hydraulics\PERMITS_Environmental\Drawings\SH-T\BR-0124_HYD_PRR_psh02.dgn

-L-

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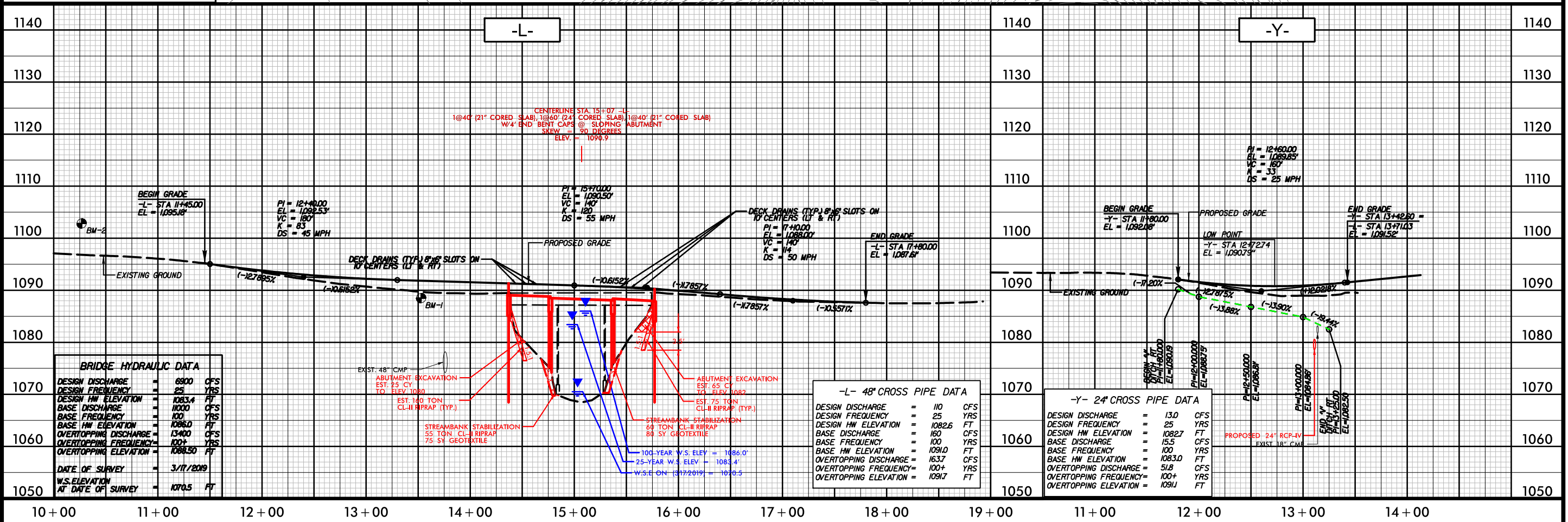
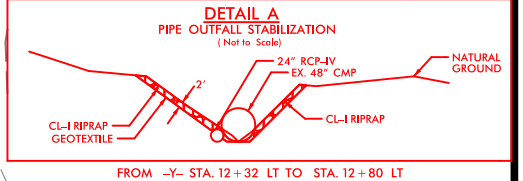
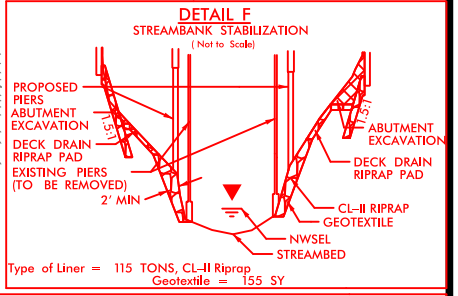
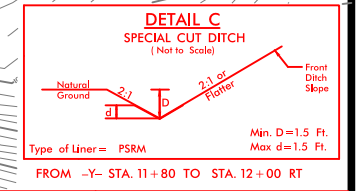
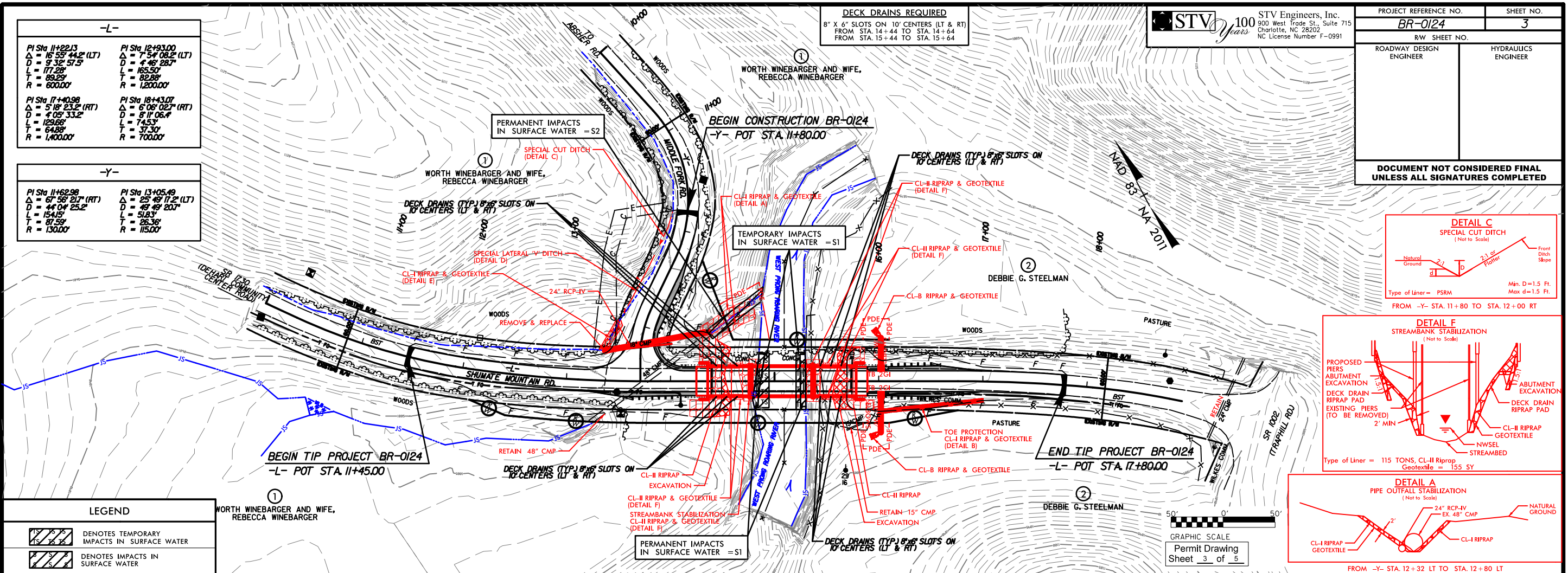
LEGEND

	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES IMPACTS IN SURFACE WATER

DECK DRAINS REQUIRED
8" X 4" SLOTS ON 10' CENTERS (LT & RT)
FROM STA. 14+44 TO STA. 14+64
FROM STA. 15+44 TO STA. 15+64

STV 100 STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-9991

PROJECT REFERENCE NO. BR-0124	SHEET NO. 3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	=	6900	CFS
DESIGN FREQUENCY	=	25	YRS
DESIGN HW ELEVATION	=	1083.4	FT
BASE DISCHARGE	=	1000	CFS
BASE FREQUENCY	=	100	YRS
BASE HW ELEVATION	=	1086.0	FT
OVERTOPPING DISCHARGE	=	13400	CFS
OVERTOPPING FREQUENCY	=	100+	YRS
OVERTOPPING ELEVATION	=	1088.50	FT
DATE OF SURVEY	=	3/11/2019	
W.S. ELEVATION AT DATE OF SURVEY	=	1070.5	FT

-L- 48" CROSS PIPE DATA

DESIGN DISCHARGE	=	110	CFS
DESIGN FREQUENCY	=	25	YRS
DESIGN HW ELEVATION	=	1082.6	FT
BASE DISCHARGE	=	100	CFS
BASE FREQUENCY	=	100	YRS
BASE HW ELEVATION	=	1083.0	FT
OVERTOPPING DISCHARGE	=	163.7	CFS
OVERTOPPING FREQUENCY	=	100+	YRS
OVERTOPPING ELEVATION	=	1091.7	FT

-Y- 24" CROSS PIPE DATA

DESIGN DISCHARGE	=	13.0	CFS
DESIGN FREQUENCY	=	25	YRS
DESIGN HW ELEVATION	=	1082.7	FT
BASE DISCHARGE	=	10.0	CFS
BASE FREQUENCY	=	100	YRS
BASE HW ELEVATION	=	1083.0	FT
OVERTOPPING DISCHARGE	=	51.8	CFS
OVERTOPPING FREQUENCY	=	100+	YRS
OVERTOPPING ELEVATION	=	1091.1	FT

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	14+36.75 / 15+78.25	1 @ 40'(21" CORED SLAB) 1@60' (24" CORED SLAB), 1@40' (21" CORED SLAB) - OAL = 142.5', IMPACTS FROM TURBIDITY CURTAINS						0.02			5*	
1	14+36.75 / 15+78.25	1 @ 40'(21" CORED SLAB) 1@60' (24" CORED SLAB), 1@40' (21" CORED SLAB) - OAL = 142.5', IMPACTS FROM STREAMBANK STABILIZATION						0.01		51		
2	14+34.33 / 14+89.02	TRIBUTARY RUNNING THROUGH 48" CMP, IMPACTS FROM STREAMBANK STABILIZATION AT OUTFALL						0.02		63		
TOTALS:								0.03	0.02	114	5	

*TEMPORARY IMPACTS LENGTH TOTAL = 56' (51' TAKEN INTO ACCOUNT IN PERMANENT STREAMBANK STABILIZATION IMPACTS)

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 BRIDGE #166 OVER WEST PRONG ROARING RIVER
 ON SR 1745 (SHUMATE MOUNTAIN RD)
 WILKES COUNTY
 BR-0124